

the flag can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the pole is opposite a side of the bore.

REMARKS

This is in response to the Office Action dated October 4, 2001. In that Office Action the Examiner pointed out a typographical error in the specification, rejected claims 2-4 and 11 under Section 112, rejected claims 1-4, 6 and 7 based upon Moore in combination with Rendall and Roberts and rejected claims 8-10 under Section 103 based upon Adams in view of Lee '087. The Examiner also cited, but did not rely upon six other references that disclose various holders.

Applicant has amended the specification to correct the typographical error. Claims 2, 3 and 4 were amended to overcome the Section 112 rejection. Claims 1-4, 8 and 11 were amended to consistently spell multi-sided with a hyphen. Reconsideration of the rejections in light of these amendments and the following comments are respectfully requested.

The Section 112 Rejections

The Examiner rejected claims 2, 3 and 4 saying it was unclear which cross-section was referenced by the phrase "multisided cross-section" in claims 2, 3 and 4, but "assumed that both of the multi-sided cross-sections are being referred to." That assumption was correct. Claims 2, 3 and 4 were amended to clearly reference both of the multi-sided cross-sections.

Concerning claim 11 the Examiner said "it appears the 'flag' has been doubly included in lines 1 and 4. " In claim 11 the preamble reads "A holder and flag." The claim has two elements, element a which defines the holder portion and element b which defines the flag portion of the "holder and flag" device being claimed. Since the function of the preamble is to name or define what is being claimed and the elements recite the structure being claimed, there is no double

inclusion of flag in claim 11. Rather there is the name "holder and flag" in the preamble and the element "a flag" in line 4. For that reason, claim 11 meets the requirements of Section 112.

The Claimed Invention

The application contains 11 claims, claims 1, 8 and 11 being the independent claims. All of the claims require a suction cup with a neck that has a bore or transverse bore having a multi-sided cross-section. The claims further require a split ring, hook or flag on a pole that has ends with a multi-sided cross-section complementary with the multi-sided cross-section of the bore. Finally, the claims require that the split ring, hook or flagpole "can be rotated within the bore from a first position to a second position" such that in each position every side of the end of the split ring, hook or flagpole is opposite a side of the at least one bore.

The Lee '087 patent discloses a suction type fixing mechanism in which:

"A suction handle 40 is mounted at the center of a fixing body 20 having a suction installation part 10 made of a rubber on the back, to drive the suction installation part 10 and to finish with a cover 60 on the front, and on an upper portion of the fixing body 20 a step boss 70 and a rotor 80 are mounted and fixed with a fixing mechanism for a flagpole fixing a flagpole 100." Column 2, lines 10-15

The Examiner identified element 10 as the cup portion, elements 20, 60, 70 and 80 as the neck portion and element 100 as the pole. However, elements 20, 60, 70 and 80 are not a suction cup but rather are a complicated suction mechanism in which a lever 40 is moved to create a suction grip by lifting the center of the rubber pad 10. As can be clearly seen in Figures 2 and 3 of the '087 patent, the flagpole 100 fits within bore 83. Both the flagpole and the bore have a circular cross-section. Obviously, the structure does not meet the requirement of applicant's claims that there be a transverse bore through the neck of a suction cup or that the bore have a multi-sided cross-section. The Lee device also does not meet the requirement in claim 11 that the flagpole

has a complementary multi-sided cross-section. The rotor 80 fits into a bore within boss 70. As can be seen in Figures 2, 3, and 4, the rotor is cylindrical with a transverse bore 89 containing spring 87 and balls 88. A plurality of step grooves 71 are formed at equal angles in the inner middle part of the boss. This arrangement creates a multi-sided bore with a hub and spoke cross-section within the boss 70. The cross-section through the rotor at the location of spring 87 and balls 88 is not a hub and spoke cross-section. Depending upon the position of the balls, the cross-section could be four continuous interconnected arcs with the two larger arcs being the same and the smaller arcs being possibly, but not necessarily, the same. Or the cross-section could be generally cylindrical with the pairs of V-shaped indentations. This is not a pole having a multi-sided cross-section as required by applicant's claims, but rather a variable structure. Furthermore, the bore through the boss 70 is not transverse relative to the boss or neck but axial. Therefore, Lee '087 does not anticipate claim 11.

Moore, Rendall and Adams all disclose holders in which a ring or hook with a circular cross section is held within a bore of circular cross-section. There is nothing in these references to teach or suggest that the ends of these rings and hook or the bore have a multi-sided cross-section.

Roberts discloses a fishing rod holder having a mount 40 with a bore or barrel 46 that receives a post 36. The barrel has a undulating interior surface that mates with an undulating surface 38 on the post. Roberts teaches at column 2, lines 51-53 that "the holster can be rotated horizontally to different positions by withdrawing the undulating portion 38 from the undulating portions of the barrel." While the post and barrel have multi-sided cross-sections, Roberts teaches away from the requirement of applicant's claims that the split ring, hook or flag pole "can be rotated within the bore from a first position to a second position such that in each position

every side of the end of the split ring (or hook or flagpole) is opposite a side of the at least one bore." The pole in Roberts can only be rotated after being withdrawn from the bore.

The overall teaching in the art is that whenever a structure is to be rotated within a bore, the cross-section of both the structure and the bore are to be circular. Applicant has departed from this teaching and claimed a multi-sided structure that can be rotated within a bore having a complementary multi-sided cross-section.

Despite having found no suction cup with a bore having a non-circular cross-section, the Examiner asserts at page 5 of the Office Action that it would be obvious to construct the ends of the split ring "of a number of different shapes, including square, hexagonal and octagonal, so long as the ring does not intermittently pivot from a desired position." To reach such a conclusion without any support in the prior art is highly improper.

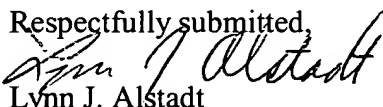
For a claim to be obvious from a prior art reference or combination of references, the reference or references must disclose each element of the claim and contain a teaching, suggestion or motivation to combine the references in manner to create the claimed invention. In re Sernaker, 702 F.2d 989, 995-996; 217 USPQ 1, 6 (Fed. Cir. 1983). It is wrong to use applicant's disclosure "as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the results of [applicants'] claims. * * Monday morning quarterbacking is quite improper when resolving the question of nonobviousness..." Orthopedic Equipment Co., Inc. et al. v. United States, 702 F.2d 1005, 1012; 217 USPQ 193, 199 (Fed. Cir. 1983).

None of the cited references teach a suction cup with a transverse bore having a multi-sided cross section. In all of the suction cups of the prior art that have a transverse bore, the bore is circular. The two references cited by the Examiner that disclose structures with bores having a

multi-sided cross-sectional are not suction cups. Roberts discloses a molded plastic holder in which the post must be withdrawn from the mount to be rotated. Lee discloses a lever operated suction device in which a vacuum is produced by placing a rubber pad on a flat surface and pulling a suction handle 40 to lift the center of the pad away from the surface. Neither reference suggests a multi-sided bore be cut through the neck of a suction cup to receive a similarly shaped end of a ring, hook or pole. One skilled in the art looking to design a suction cup holder would not consider the fishing pole holder disclosed by Roberts and likely would view Lee as following the prior art of placing a circular flagpole in a circular bore. The spring biased locking balls in the rotor of the Lee mechanism would be disregarded as too expensive and complicated as a way of holding a structure within a transverse bore through the neck of a suction cup. Indeed, Lee is attempting to solve the same problem as applicant, namely holding a flag in selected positions using suction. Yet, Lee created a complicated mechanism with at least fifteen pieces shown in Figure 2 to perform the same function as the one piece disclosed by applicant, a suction cup with a multi-sided transverse bore.

For the foregoing reasons, applicant submits that the cited references do not each or suggest the claimed invention and that the claims as amended comply with Section 112.

Reconsideration and allowance are respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification, at page 4, line 21 thru page 5, line 13

A bore 6 having a square cross section passes transversely through the neck 4. The square ends 12 of the split ring 10 fit within either end of the square bore in the neck 4 of the suction cup 2. The suction cup 2 is an otherwise conventional suction cup made of a soft vinyl. The neck of the suction cup may have a circular cross-section as shown or [my] may be square, hexagonal, oval or other shape that creates a generally cylindrical structure. The ring 10 is made of a harder plastic such as polypropylene or polycarbonate. Consequently, the ring 10 can be rotated 90 degrees within the square bore from a plane indicated by dotted line A-A in Figure 1 that is parallel to a wall 20 on which the suction cup 10 is mounted to a plane B shown in dotted lines in Figure 2 that is perpendicular to that wall. When the ring is in either of these two positions every side of both ends of the ring is opposite a side of the bore. When a razor, toothbrush or similarly shaped object (not shown) is placed within the ring 10 oriented as shown in Figures 3 and 4, the weight of the object will tend to push the ring downward. However, because of the square shape of the bore and the ends of the ring, the ring will not be deflected downward. The square bore 6 in the embodiment shown in the drawings extends completely through the suction cup. However, one could provide two rectangular cavities to receive the square ends 14 of the ring 10 such that neither cavity extends completely through the neck. The two cavities would be on a common axis and separated by a web in the center of the neck.

In the Claims:

1. (Amended) A holder comprising:

(a) a suction cup having a cup portion, a neck containing at least one bore having a multi-sided cross section, and

(b) a split ring having two ends, said ends having a [multisided] multi-sided cross-section complementary to the bore, each end sized and fitted within the at least one bore so that the split ring can be rotated within the bore from a first position to a second position such that in each position every side of the end of the split ring is opposite a side of the at least one bore.

2. (Amended) The holder of claim 1, wherein the [multisided] multi-sided cross-section [is] of the at least one bore and the multi-sided cross-section of the ends of the split ring are square.

3. (Amended) The holder of claim 1, wherein the [multisided] multi-sided cross-section [is] of the at least one bore and the multi-sided cross-section of the ends of the split ring are hexagonal.

4. (Amended) The holder of claim 1, wherein the [multisided] multi-sided cross-section [is] of the at least one bore and the multi-sided cross-section of the ends of the split ring are octagonal.

8. (Amended) A holder comprising:

a. a suction cup having a cup portion and a neck extending from the cup portion, the neck

containing a transverse bore having a multi-sided cross section, and

b. a hook having two ends, a portion of said hook adjacent one of said ends having a [multisided] multi-sided cross-section complementary to the bore, said portion fitted within the bore so that the hook can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the hook is opposite a side of the bore.

11. (Amended) A holder and flag comprising:

a. a suction cup having a cup portion and a neck extending from the cup portion, the neck containing a transverse bore having a multi-sided cross section, and

b. a flag having a display portion attached to a pole, at least a portion of said pole having a [multisided] multi-sided cross-section complementary to the bore, said portion fitted within the bore so that the flag can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the pole is opposite a side of the bore.